
Franklin User Acceptance Testing

Participant Feedback Analyzed for the Franklin Team by

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IBM Ease of Use Architecture and Design

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Franklin User Acceptance Testing

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Executive Summary

Participants generally liked the functionality that Franklin provided, and they were generally satisfied with the tool overall. Participants liked that Franklin

- *Publishes data in as many different formats as desired*
- *Solves the problem of data maintenance on the Web*
- *Stores product data in XML*
- *Provides the ability to publish content without help from developers*
- *Provides the ability to change content once and have the changes appear in multiple places*
- *Provides the ability to convert product data to non-Web platforms*
- *Provides the ability to preview*
- *Allows sharing of fragments*
- *Provides better organization of content/data via standardization*
- *Allows the user to click around the site and easily change the page*
- *Allows the user to retrieve documents based on URL*

In addition to these generally positive comments, participants noted areas for improvement. In particular, participants expressed dislike for the current UI, or what they called "getting around" in it. They recommended, either explicitly or implicitly, several minor changes, such as right-click options, double clicking to open/check out documents, keyboard shortcuts for copy and paste, a more conspicuous icon for the search interface, and a way to sort lists of items in the search interface by clicking on headers. They also recommended or implied that some major changes would be valuable. Specifically, participants suggested enabling users to browse the Web and identify/select servables and fragments for editing, and creating a browsable library (distinct from the search interface) of fragments and servables that also enables previewing.

The Franklin team needs to implement the minor changes participants recommended, and also consider some of the major changes. The magnitude of the UI design changes the team undertakes will likely depend upon the goals/requirements for Franklin. If the goal is for users to be as efficient as they can be using Franklin, and to learn it as quickly as possible, then the Franklin team needs to gather more user input to determine the optimal UI design for interacting with servables and fragments. If the goal is only for users to be more efficient than they are currently, then several minor changes to the UI will likely suffice. The usability goals for Franklin will dictate whether more user input and major design changes are necessary.

Recommendations

The most important recommendation involves completing a design walkthrough. The specific recommendations for improving the UI appear in two categories, one for major design changes, and one for minor changes.

Complete a design walkthrough or head-to-head comparison

If the goal is for users of Franklin to be as efficient as they can be, then the Franklin team needs to complete a design walkthrough showing users different possible designs for finding and working with servables and fragments. Among these different possible designs would be those of the competition. The main goal of the walk through is to determine which design(s) works best. Other goals are to determine if there is a reason or advantage in continuing to develop a new product, what those

advantages are, and whether the new product being considered needs changes to the conceptual design. The different designs used can be paper sketches, screen mockups, or a fully functional tool like Franklin is currently. Whichever they are, participants "walk through" accomplishing particular tasks. See the UCD site for more information on design walkthroughs (w3.ibm.com/ucd).

Consider the following major UI changes:

- ♦ Additional views (e.g. tree diagrams, or other mechanisms determined by user input) for finding, checking out, and previewing fragments and servables
- ♦ A feature that allows users to browse the site and find the page/fragment they want, and then select and open it from the browser to edit it
- ♦ A mechanism allowing users to organize servables and fragments according to their needs
- ♦ A preview function in the search interface so users can determine if a fragment or servable is the one they want (perhaps previewing the selected fragment or servable in a right pane while the left shows the list of fragments or servables)

Make as many of the following UI changes as time and resources permit:

- Provide a short tutorial explaining how to get started using Franklin
- Give default focus to the user name field of the Franklin logon interface (also enable keyboard use to logon)
- Provide easy-to-understand labels for fields in templates
- When possible, change to standard Lotus or Microsoft icons, or icons that users are more familiar with
- Use text labels with all icons or those icons that may be unfamiliar
- Make it more obvious that the search button is active when Franklin first launches
- Enable use of keyboard for all functionality, especially copying and pasting fragments
- When users access the directory, open to the location users were last viewing
- When the Franklin window is resized, adjust the size of option and entry fields so that the entire UI fits into the window; establish a minimum size for entry fields, at which point horizontal scrolling is required
- Do not close the draft when users click save as draft (not sure what all users expect save as draft to do, but one person recommended this, use extra discretion here)
- Provide messages that not only tell users there is a problem, but tell users how to solve the problem
- Provide messages to indicate why preview will not work in some situations
- Provide localized help to explain the function of specific fields in templates, or a prominent link to a page showing examples of how the data is used
- Indicate for all fields what information is and/or is not necessary (e.g. whether adding a \$ sign is necessary in price fields, and whether adding the abbreviation MB is necessary for memory fields)
- Indicate beside the name fields that users need to add file extensions such as .jpeg or .gif
- Add right-click functionality, such as for copying and pasting fragments, or checking out fragments and servables
- Enable users to sort search results by creator, dates, etc., by clicking on the metadata headings
- Ensure user ids and logins aren't case sensitive, and that users get the same search results when they type roger tilson or Roger Tilson as the creator
- To check out fragments, allow users to type names in addition to copying and pasting them

- Facilitate double-clicking to open/check out documents and create new ones
- Provide more cues in the search interface as to the status of use of fragments and servables: are they currently checked out, and are they currently published on the site
- Provide a way to publish to multiple servers

Caveats

This user input will be most valuable as a means to improve the UI and functionality rather than as an assessment of the value of Franklin. It will not be very useful as an assessment of the value of Franklin for the following reasons:

- ◆ At least two participants thought Franklin was for product data only, which caused them to rate Franklin lower on key scales
- ◆ One participant did not realize that Franklin was intended to be used as part of a workflow process, and that they did not use this aspect of the product
- ◆ The esites meta data was complex and foreign to this different group of users, which made the tasks difficult to complete
- ◆ Participants reported that sometimes the instructions were not clear or contained irrelevant information, and most could not complete task 8 because the document was not checked out as was intended

If the Franklin team still wants a proof-of-concept user evaluation, then Franklin will need to be customized to meet the specific needs of the user group that performs the evaluation. The scripts will also need to be pilot tested, since some of the instructions were inaccurate.

Participants

Four out of six of the participants currently create or maintain content for Web sites. The other two participants are involved in determining which tool(s) the TG group will use to create and manage Web content.

Findings

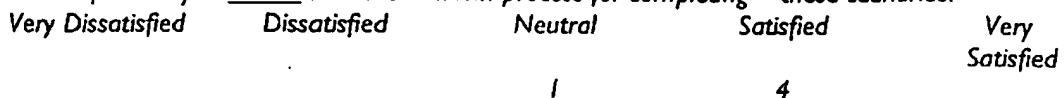
Participants liked the functionality that Franklin provided. Specifically, they liked that it:

- ◆ Publishes data in as many different formats as desired
- ◆ Solves the problem of data maintenance on the Web
- ◆ Stores product data in XML
- ◆ Provides the ability to publish content without help from developers
- ◆ Provides the ability to change content once and have the changes appear in multiple places
- ◆ Provides the ability to convert product data to non-Web platforms
- ◆ Provides the ability to preview
- ◆ Allows sharing of fragments (with other content providers? Or documents? Or both?)
- ◆ Provides better organization content/data via standardization
- ◆ Allows the user to click around the site and easily change the page
- ◆ Allows the user to retrieve documents based on URL

Below are the ratings for three of the post-test questions, and the comments of the participants:

Overall satisfaction

How satisfied are you overall with the Franklin process for completing these scenarios?



Mean Avg: 3.8 (Between Neutral and Satisfied)

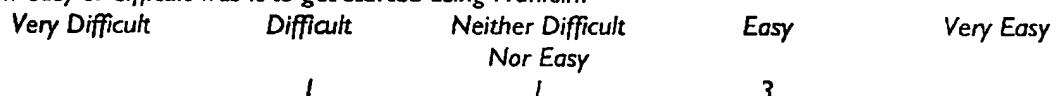
Lynn (Neutral): I liked the way it captured the data and how that data could be used anywhere in as many different formats as someone wanted. Getting around the tool was difficult.

Michelle (Satisfied): I believe that Franklin is a good tool to complete a lot of the content management tasks. However, the main comment I have is that the instructions for the test are not clear, making it difficult for me to evaluate Franklin. The 30min orientation (given the down times) gives only a cursory view of the tool. I would be able to give better feedback if I understand it more.

Dave (Satisfied): Although not impressed in comparison to our other tools, Franklin is a good product. It gets the job done, is fairly easy to use after being trained and learning how the UI works, and solves a legitimate problem with data maintenance on the Web.

Getting started

How easy or difficult was it to get started using Franklin?



Mean Avg: 3.4 (Between Neither/Nor and Easy)

Lynn (Neither/Nor): When the login screen appears, the top text box should have a set focus on it.

Patty (Easy): The hardest part was understanding the meta data for the e-sites.

Phyllis (Difficult): I did not know about the icons to the right of the screen (i.e. check out subfragment or add fields).

I did not know that fragments or subfragments had to be 'merged' onto the active list in order to use them.

Dave (Easy): It is not a difficult tool. There were frustrations at the beginning, however. For example, wanting to close the current document, and not finding where the close button was. (Closing the entire application instead.) Also, Copy and Paste did not seem to work, and other functions that are normally taken for granted in any production application.

Do you think Franklin needs to be easier to get started using?

Lynn: Yes. There could be a tutorial provided.

Patty: No

Phyllis: Yes

Michelle: Yes, An average user may not be well versed in "common" software navigation. Need more comprehensive training before use and continued support during use. Would be useful to have a help manual (local and Web).

Dave: Yes. Things as simple as using standard icons for close, copy, paste, etc. would be a great help. Although the tool is not hard to learn, the questions are screaming in my mind of why the programmers made up their own icons for copy/paste, among other things?

Ease of using once learned

How easy or difficult was using Franklin once you had learned how it worked?

Very Difficult	Difficult	Neither Difficult Nor Easy	Easy	Very Easy
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2 2

Mean Avg: 4.5 (Between Easy and Very Easy)

Phyllis (Very Easy): The tool was easy to use after I had received help from Dikran. In the future, the eMeeting should be allotted more time to ensure that the introduction may be completed.

Michelle (Easy): Once you understand how it works, it's easy though there are little quirks here and there.

Dave (Easy): As mentioned, the initial learning curve is quick, then the tool is easy to work with. The exception to this is the product page form, which is way too complex for the average user.

Comparison with other tools

How does Franklin compare to the current method/tool you use to manage the content of Web sites? Franklin is...

Much Worse	Worse	About the Same	Better	Much Better	N/A
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2 3

Mean Avg: 2 (Worse)

Lynn (Worse): Worse than our new tool. We would have to set up extensive training on the Franklin tool and then dedicate resources to be a pseudo help desk.

Dave (Worse): Although Franklin has some added features, it is missing many more. It seems to be more a tool to just manage the XML for product data than for true content management. Also, the UI features need quite a bit of work to make the tool workable for most users. If Franklin could be integrated as a part of a complete content management system, it would add a good deal of value.

Task efficiency

Tasks users can complete more efficiently using Franklin:

Lynn: Viewing data under different environments, Storage of XML data

Phyllis: The ability to publish content without help from developers
The ability to change content once even though it is located in multiple places

Dave: Product Spec sheets, conversion of product data to non-Web platforms

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Tasks users can complete more efficiently using other tools:

Lynn: Our tasks are easier to perform. Our new tool will have the ability to modify non-product data.

Phyllis: None

In general, would Franklin allow you to complete your tasks more efficiently:

Lynn: Franklin would allow our team to perform a fraction of our tasks more efficiently. We still have the overview page, news, support, press releases and a few other templates.

Phyllis: Yes. It will reduce the need for help from developers. Content will, consequently, be updated or modified more frequently.

Dave: No. Most of IBM does not have a robust content management tool, and would get great value from Franklin. However, PSD has a tool already, and is developing the next generation of that tool. The ideal solution would be to integrate the strengths of Franklin with the rest of their tool.

Franklin advantages

Lynn: Good way to store XML data.

Patty: The ability to edit Fragments and their meta data. Also, the ability to preview.

Phyllis: The ease of publishing content.

Michelle: Self-service tool for content providers.

Allows sharing of fragments.

Better organization of pages/content via standardization.

Dave: Storage of Product data in XML, available to both Web and non-Web platforms from the same data source.

Franklin disadvantages

Lynn: It seems to be limited in entering data only for products. How does an administrator create new style sheets or adjust current ones?

The UI needs some work, but we were told not to take that into consideration (a little hard since we are trying to use the tool).

Patty: The user interface needs some improvement, i.e. Colors, help features...Would also like to be able to copy an existing fragment/servable and customize to new content.

Phyllis: Franklin does not have workflow capabilities.

Michelle: The UI is not very friendly. Need to provide extensive training to users.

Conversely, the "better organization" of content also means that there is lesser flexibility.

Dave: Lack of UI. It is not intuitive to use, and therefore requires support and customization for any group that wants to use it. The fact that Franklin is already being used, yet we are going through this exercise to evaluate it for TG, is a perfect example of its need to be improved in UI and flexibility.

Would you want to use Franklin or similar process/tool?

Lynn: Yes

Patty: Yes. However, I am concerned about our content providers. They currently use a home grown interface that does not require them to fill in meta-data. Perhaps (just brainstorming) we'd need a layer on top of this for those who want to provide content but just use the existing meta data values and therefore don't even show them.

Phyllis: Yes. At this point there is a lengthy turnaround time for content changes since developers are given the task of loading content as opposed to content managers/authors.

Michelle: Yes

Dave: Yes. Franklin is definitely on the right track. And mentioned previously, if integrated with a more complete content solution, it would be a valuable tool.

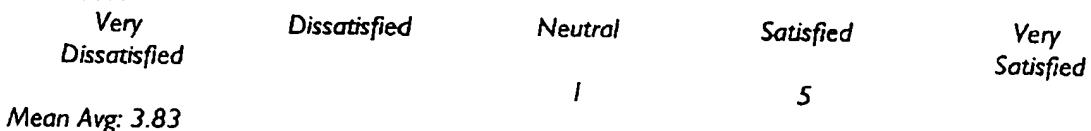
What would you most like to change?

Lynn: The user interface needs to be a little bit more helpful. I would also like to have seen the administrator's pt of view. How does a team create new style sheets?

Patty: I know we didn't use the workflow part, but I'd like to be able to have a baseline for content, so when updates are made the reviewer can see what exactly has changed without reading the entire piece of content.

Michelle: Friendlier UI. Better navigation.

Dave: User Interface

Scenario 2

Mean Avg: 3.83

Comments:

Carl (Neutral): With or without a content management tool, what we need is a well-ordered, well-maintained, user-friendly image library, and when new images are created we need content owners to put them into the library. Adopting Franklin (or any other tool) will not automatically cause this to happen.

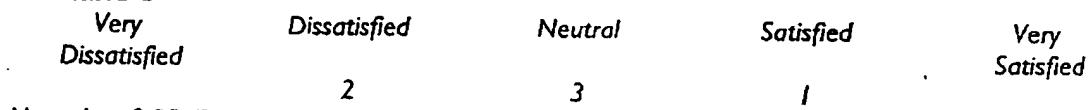
Lynn: (Satisfied): It allowed me to complete the task. "Content" field should be above "Content FileName". When a user browses for an image, they can find it in the local directory then the file name just appears in the "Content" field. When browsing for the image, if the user selects one, and it is wrong, they have to browse for it again. When they hit that button to browse, the directory is not where the user last looked, it is in the Franklin Tool directory. I think it should remember where the user looked last.

Patty (Satisfied): Don't think that I, the user, should have to check for duplicate name before creating the image. Also, please provide some filename help...i.e. Naming guidelines.

Phyllis (Satisfied): I was pleased with the tool AFTER I had help from Dikran. For example, in the CONTENTFILENAME field I did not know to add a file extension (i.e. jpg) from the error message 'could not map filename null'. A suggestion for tool improvement is to allow double-clicking on fields. For example, upon creating a fragment or page, I was hoping to double-click on the fragment type to create it. Instead I am forced to click on the CREATE button on the bottom.

Michelle (Satisfied): Easy to use. Would be great if Franklin can "remember" where I last pulled my files from. "Content File Name" - why can't this be pulled from the file name of the gif/jpg automatically?

Dave (Satisfied): The form for submitting images is fairly simple and straightforward. It is easy to work with, and being able to view the directory structure on the server is a nice touch. However, the UI is not intuitive, and needs work.

Scenario 3

Mean Avg: 2.83 (Between Dissatisfied and Neutral)

Comments:

Carl (Dissatisfied): First: I couldn't figure out how to get out of "Thumbnail" mode, so I had to shut down Franklin and restart it.

Second: I had to re-edit franklin.properties before it would preview the file. The requirement to configure franklin.properties will be a huge barrier to most of our prospective content "owners" because by and large they are not technical people. With content coming from many people in many locations, I see this as a significant barrier to its successful widespread adoption. Rather than bottom-line content "owners" uploading content, we will likely end up with a few people on the web team doing it.

Third: The Scenario instructions ask you to "refresh tasks assigned to you". I never did figure out how to find out what tasks were "assigned to me". I finally ignored this instruction.

Fourth: When I edited the product page and saved it as a draft, my edits disappeared from the fields on the right side of Franklin and the downlevel version reappeared. This is very counter-intuitive. Keeping the downlevel version is great, but when you save your edits you should continue to see the new version. Each time I checked the document in, my edits would disappear and the downlevel version would reappear.

Fifth: When I checked out the product page, and then did a search, the version I checked out did not appear in the search results. It should appear, with a notation that it has been checked out.

Lynn (Neutral): I'm assuming it is a product specialist involved with the creation.

Patty (Neutral): Insufficient help with error messages.

Michelle (Neutral): Navigation is difficult especially between search window and main window. "Right click" functions would help.

The instructions are not clear. Some steps don't seem relevant.

Would be very helpful if each meta data has a detail/brief description. Maybe this is not so bad for someone who knows the product well. I am not well versed, so I have difficulty.

Got an error message - "Automation server cannot create object." after Step #18. Dikran said it's a security problem.

Dave (Dissatisfied): The form is too complex for end users. The people who write the content for product pages are not technical. Based on our experiences with the first generation of our content management tool, if the forms are too complex, even with training, the system just won't get used. The process of filling out the form and submitting is fine, but the form needs to be simplified, and the terminology on each field has to be written in English, not the field names that make sense to the system programmers.

Scenario 4

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
		3	2	

Mean Avg: 3.4 (Between Neutral and Satisfied)

Comments:

Lynn (Neutral): The tool wasn't checking in at all. I tried to modify all the fields and they didn't work until I cut out the registered symbol in the summary. Then it checked-in fine. The exact error was, "an error parsing input stream".

Phyllis (Neutral): After I had checked the page in I had gotten the message 'can not preview this page'. Does this have something to do with the style sheet for PDA?

Michelle (Neutral): Instructions not clear. Followed instructions but the PDA link did not show up at the "approval pages" stage. Dikran tried it and the PDA link showed up on his pc.

Dave (Satisfied): The process works, and if the page is already created, the form does not seem as daunting as when creating a page from scratch. However, had I not already been shown how to add the PDA style sheets, I would have had trouble figuring it out on my own, and the style sheets/layout are not visually separated from the rest of the fields on the form.

Scenario 5

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
		2	2	1

Mean Avg: 3.8 (Between Neutral and Satisfied)

Comments:

Lynn (Satisfied): The general thought of capturing data like this is great. The UI is a problem. Assuming the person entering in the info is a product specialist, it still doesn't specify whether MB should be entered for memory or just a number.

Phyllis: (Neutral) I had tried to preview my fragment but every time I had clicked on the preview icon nothing happened.

Michelle (Neutral): No explanation of each meta data. A product specialist might know but I am not well versed. Had some difficulties understand the fields required.

Dave (Satisfied): Again, aside from UI complaints, the tool does the job intended.

Scenario 6

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
		1	4	

Mean Avg: 3.8 (Between Neutral and Satisfied)

Comments:

Lynn (Satisfied): I think the purpose behind it is great. The product is good at enabling the user to complete this scenario. But w/o directions, I would have been lost. I used product specs created by other people that were already published. I didn't understand why they needed to be checked-in/published again for my task.

Phyllis (Satisfied): The tool is excellent. I just had difficulty adding a product spec since my screen did not display the '+' sign to the right of the field. Without asking Dikran, I would not have known to scroll to the right of the screen to click on the '+' sign.

Michelle (Neutral): Suggest that the "price" meta data field indicate that the "\$" is default. If not, end up with values like "\$\$3500".

My thumbnail did not show up. Dikran explained that it is in the index page and not product comparison page.

My Product Comparison page did not show up. The page also did not show up in the search function. Recreated the pages twice using different names (replaced "&" with "_" because of XML). Still did not show up. "The requested URL/web/ProdCompA&T.html was not found on this server."

"Caps" or "no caps" for user name/creator field. I logged on Friday under "Michelle Lim". I logged on Monday under "michelle lim". When I do searches by creator, I get different results when I use "Michelle Lim" and "michelle lim". It's confusing.

Scenario 7

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
			3	2

Mean Avg: 4.4 (Between Satisfied and Very Satisfied)

Comments:

Lynn (Satisfied): Allows the user to click around the site and easily change the page.

Patty (Very Satisfied): I'm extremely impressed with the functionality to retrieve based on URL.

Phyllis (Satisfied): This functionality is excellent. The only difficulty I had encountered was checking out the subfragment. I did not see the icon to the right of the product spec field. I kept copying the fragment id of the subfragment and going to 'FILE CHECK OUT WITH FRAGMENT ID', which did not change the right-side of the screen.

Michelle (Very Satisfied): This part is easy. =)

Scenario 8

Very	Dissatisfied	Neutral	Satisfied	Very

Dissatisfied

Satisfied

/ /

Comments:

Lynn (Dissatisfied): I couldn't just type the id in the field. I had no conflict report or it wasn't apparent as to where it was.

Phyllis: I could not type the fragmentid into the appropriate field. I did not receive an error message stating that another was using the field either. Hence, I could not complete this task.

Michelle (Neutral): The check out by fragment ID window.... only accepts a cut and paste of the ID. Does not allow direct entry into the box.

Did not get a message that the fragment is locked but a conflict report did come up. However, was not given the option to click "OK" and check out anyway (Step #4). Could not evaluate.

Dave: N/A – There were no tasks in the system, so this scenario did not function as the test described

Scenario 9

Very
Dissatisfied

Dissatisfied

Neutral

Satisfied

Very
Satisfied

/

Comments:

Lynn: I had no one to work with on this.

Phyllis: There were no colleagues to test this with. Hence, I did not complete this scenario.

Michelle: Could not evaluate with another user.

Dave: N/A – I was working alone, so could not test with another user.

Discussion

The Franklin team may want to establish short-term and long-term goals for the Franklin content management system. In the short-term, the team could provide many of the fixes that participants in this evaluation recommended. In the long-term, the team could examine different possible views and mechanisms for interacting with servables and fragments, and provide the optimal solution. Providing the smaller fixes will increase user satisfaction, and the ease of completing tasks. The long-term work will address the underlying or deeper causes for the participants disliking the current UI, and will likely make a bigger impact on increasing ease of use and user satisfaction.

Short-term fixes can help users learn the interface, and minimize problems if users' conceptual model differs from the model upon which Franklin operates. For instance, the search button is the only button operable in the initial view of Franklin. This button, however, is gray and appears too similar in state to the other buttons that are inoperable at this point. Providing a better visual cue that users can begin work by clicking the search button, and implementing other improvements that users in this evaluation recommended, can go a long way toward improving the usability of Franklin.

That all of the participants listed the UI as the primary disadvantage of the product suggests that these short-term fixes will not arrive at the optimal solution for interacting with servables and fragments, however. More work needs to be done to arrive at a solution that matches the user's conceptual model.

A few of the bigger issues that need to be addressed are:

- *What is the base view for interacting with servables and fragments?*
- *What is the start view for interacting with servables and fragments, and is it different from the base view?*
- *Do users want/need additional views or mechanisms for interacting with servables and fragments?*
- *How do users conceptualize organizing fragments and servables?*
- *How do users conceptualize accessing servables and fragments?*
- *How do users conceptualize moving from a view of documents in a library to a work view?*

Franklin currently opens into the work-plane view in which no documents are visible to beginning users. This view could also be considered the base view. One reason users may find Franklin initially difficult to use is because much of the functionality is initially hidden. There are not many cues for how to begin. An alternative design solution would be to open into a library or browsable view of documents provides a search interface for finding and checking out fragments and servables. It may be that users would prefer the library of documents, and the ability to preview documents, to be the base view.

Currently, users enter parameters and search for documents they want to work with, or they can retrieve documents based on the URL. The search functionality and retrieve based on a URL are both very useful tools, but users might like additional functionality and additional views of the content. Currently, users cannot see from the search interface how documents are organized. Providing a browsable library could be one means of providing an overview of the page types, or servables, and the fragments that constitute the pages. The library, in the form of a simple tree structure for example, could facilitate accessing fragments by the servables that contain them, which in turn could give users additional cues as to which fragments are used to create specific servables.